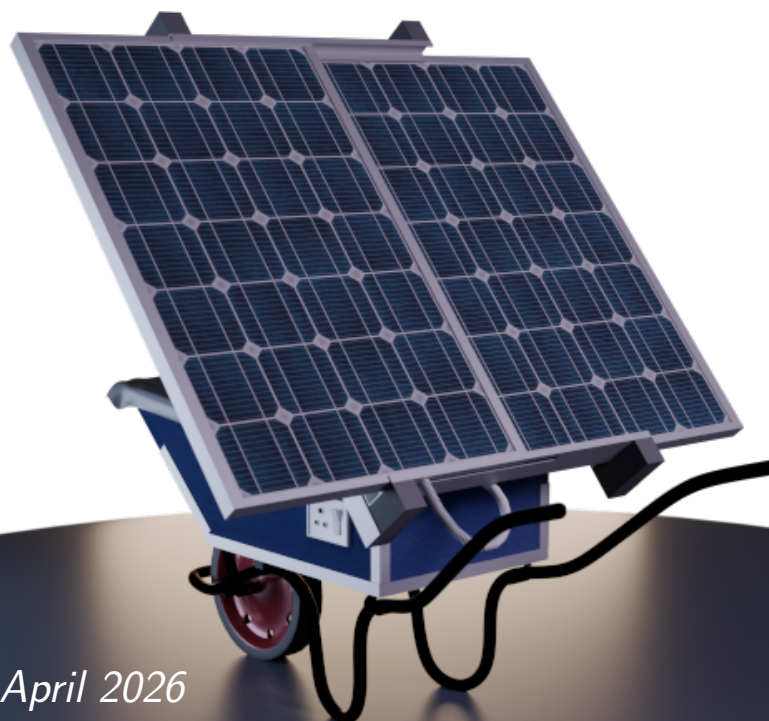




Qualiworx Engineering

- Company Profile -



April 2026

Business Name: Qualiworx Engineering
Legal Structure: Proprietary Limited (Pty. Ltd.)
Location: Maseru, Lesotho
Company logo:



Our Mission

At **Qualiworx Engineering**, our mission is to deliver sustainable, practical engineering solutions with focus on environmental projects and renewable energy generation, while promoting social and environmental justice.

About Qualiworx Engineering

Qualiworx Engineering is a Lesotho-based start-up officially registered and licensed in September 2025. The company was founded to develop and market a newly designed and highly practical product: **The Solar Barrow**.

The Solar Barrow is a mobile solar power generation and backup system designed to improve energy access for underserved households and communities in remote areas of Lesotho and Southern Africa. Lesotho's mountainous geography and limited road infrastructure make the expansion of the national electricity network and the installation of solar mini-grids costly and difficult. In many rural areas, villages cannot easily be reached by vehicle, and even transporting conventional solar systems on foot presents significant challenges. Glass solar panels are fragile, and battery storage is heavy.

The Solar Barrow addresses these challenges through a fully functional solar PV system mounted on a wheelbarrow frame, offering maximum flexibility and mobility. With its lightweight design and robust electric components, **The Solar Barrow** can be transported to remote households or moved wherever electricity is needed.

In addition to its flagship product, **Qualiworx Engineering** offers the following services:

- **Planning and supervision** of renewable energy generation projects
- **Expert consulting** on energy access, energy efficiency, and sustainability practices
- **Environmental impact assessments** to assist in a sustainable and eco-friendly completion of projects
- **Data analysis** through collection, evaluation, visualization and geo-spatial mapping

The Team

Qualiworx Engineering is a newly established start-up with two dedicated team members who contribute their expertise daily to help the company grow into a relevant player in Lesotho and the Southern African market.

Lerato Mohasi - Founder and Chief Executive Officer



Mrs. Lerato Mohasi is the Founder and Chief Executive Officer at **Qualiworx Engineering**. She is passionate about delivering clean, reliable, and affordable energy to families in Lesotho. She brings over seven years of diverse experience in office administration, customer service, and entrepreneurship, spanning corporate finance, insurance, and call center operations. With a Bachelor's degree in Business Administration, Lerato combines hands-on leadership and operational expertise with a deep understanding of local community needs, with the goal of making solar power accessible to underserved households across Lesotho and beyond.

Dr. Jan Schalk - Co-Founder and Lead Engineer

Dr. Jan Schalk has a background in Environmental Engineering, Renewable Energy Technologies, and Energy Efficiency. He brings a decade of experience in country development through engagements with The World Bank and the German International Corporation (GIZ), along with a natural passion for problem-solving. He is the co-founder of **Qualiworx Engineering**, the developer of **The Solar Barrow**, and the dedicated Lead Engineer of the company.



Why Work With Us

Although **Qualiworx Engineering** is a young company, the team brings extensive experience in renewable energy, project implementation, and stakeholder engagement. Their background includes consulting with the World Bank and Lesotho's Department of Energy on large-scale on-grid and off-grid electrification projects, as well as operations management for a local solar mini-grid installer and operator.

The team has also been involved in the planning, engineering, testing, and marketing of mobile solar stations. Technical tools such as FreeCAD for technical drawings, QGIS for geo-spatial mapping and data analysis, and statistical software such as R and Python support the company's project development and delivery.

Dr. Jan Schalk has lived in Lesotho since 2017, where he worked for the German Protestant Church Organization Bread for the World in the southern Lesotho mountains. During this time, he supported the administrative and financial strengthening of the local NGO Southern Mountains Association for Rural Transformation and Development (SMARTD) and gained valuable insight into rural life, culture, and customs in Lesotho.

In a later role as Energy Specialist for the World Bank, funded through the Lesotho Renewable Energies and Energy Access Project (LREEAP), Dr. Schalk gained in-depth knowledge of Lesotho's on-grid and off-grid energy landscape and the country's challenges in achieving universal electrification by 2030, in line with Sustainable Development Goal 7. LREEAP aimed to electrify six industrial zones and 1,400 households, rehabilitate and expand a hydropower mini-grid, and install up to 39 solar mini-grids in remote areas of Lesotho. As the World Bank representative for the energy sector and LREEAP in Lesotho, Dr. Schalk advised on ESG matters, environmental and social standards, solar site selection, project mapping, and daily coordination with the Department of Energy and the Lesotho Electricity Company.

Before joining **Qualiworx Engineering**, Dr. Schalk worked for One Power Lesotho Pty. Ltd., a local installer and operator of solar mini-grids. The company's goal was to electrify 9,000 households and critical infrastructure through the development of ten mini-grids, including medium- and low-voltage infrastructure, line stringing, and household connections. As Chief Operations Officer, Dr. Schalk supervised and supported operations teams totaling 56 staff members across project management, reticulation, operations and maintenance, health and safety, and community engagement. He also regularly reported to and liaised with the Department of Energy, the energy provider, and international funding organizations.

Unique Selling Proposition

The Solar Barrow is designed as a practical everyday solution for people in Lesotho. It provides sufficient electricity to power small households and essential appliances such as lighting, office equipment, and refrigerators during power outages.

Its key advantage is mobility. By mounting the solar system on a conventional wheelbarrow frame, **The Solar Barrow** offers exceptional flexibility and can be safely transported across rugged terrain. This makes it particularly suitable for remote communities and users who need a reliable source of electricity wherever it is needed.

Target Market for The Solar Barrow

1. **Households and small businesses:** Homes, student accommodations, small offices, lodges, and smaller hotels seeking energy access, an option to bridge load-shedding times or simply independence from the traditional energy supplier.
2. **Safety-conscious customers:** Users who value mobility and the ability to store the system securely when not in use.

3. **Cost-conscious consumers:** Customers looking for an alternative to rising electricity tariffs and a way to benefit from free solar energy.

Business Goals

1. Establish **Qualiworx Engineering** as a leading provider of renewable energy engineering solutions.
2. Successfully launch **The Solar Barrow**, aiming to sell 100 units within 30 months of the company's founding.